

BEFORE THE OFFICE OF THE COMMISSIONER OF RAILROADS

STATE OF WISCONSIN

On the Commissioner's Own Motion for a Determination of the Adequacy of Warning Devices at the Grade Crossing of the Wisconsin Central Ltd. Tracks with Rifle Road in the Town of Crescent, Oneida County

9164-RX-604

FINDINGS OF FACT AND ORDER

On May 19, 2005 the Commissioner of Railroads directed the staff of the Office of the Commissioner of Railroads (OCR) to investigate the adequacy of warning devices under §195.28, Stats., at the grade crossing of the Wisconsin Central Ltd. (WCL) tracks with Rifle Road in the Town of Crescent, Oneida County (Crossing No. 691 404B / MP 211.72).

OCR and DOT investigators inspected the crossings in 2006. No hearing was held.

Findings of Fact

THE COMMISSIONER FINDS:

Rifle Road is 26' wide in the vicinity of the crossing and intersects the railroad tracks at an angle of 90°. Rifle Road carried an average daily traffic (ADT) of 586 according to a 2006 DOT traffic count at a legal speed limit of 45 mph.

The WCL operates 2 train movements per day over the crossing at a timetable speed of 35 mph. The railroad also operates switch movements into a nearby siding on a regular basis. The crossing consists of one mainline track. A spur track begins less than 100' east of the crossing.

A motorist traveling at 45 mph requires a safe stopping distance of 385'. The crossing warning devices are visible from more than 1000' in each direction. Assuming a train speed of 35 mph, a motorist traveling at 45 mph needs to see a train when it is 460' from the crossing from a point 385' down the highway. The sight distance available in each quadrant from the safe stopping distance is as follows: 219' northwest quadrant, 444' northeast quadrant, 50' southwest quadrant and 408' southeast quadrant.

At all crossings, except those with gates, a driver stopped 15' short of the near rail must be able to see far enough down the track, in both directions, to determine if sufficient time exists for moving their vehicle safely across the tracks to a point 15' past the far rail, prior to the arrival of a train. Required clearing sight distance along both directions of the track, from the stopped position of the vehicle, is dependent upon the maximum train speed and the acceleration characteristics of the "design" vehicle. The necessary clearing sight distance at the Rifle Road crossing is about 780'. The available clearing sight distance is adequate except for northbound drivers looking west where the view is limited to 372' by trees and a track curve.

The exposure factor at this crossing is about 1200. The exposure factor at this crossing will continue to increase as development occurs to the west of Rhinelander. The exposure factor equals the product of the number of trains per day and the number of highway vehicles per day, which yields a numerical value for the potential conflicts each day at the crossing.

Five train-vehicle accidents have occurred at this crossing since 1973. The accidents occurred in 1996 (2), 2000 (2), and 2004.

Accidents that do occur here will likely be quite serious if a through train is involved due to their 35 mph speed. Train speed is strongly correlated with fatalities in train/vehicle accidents.

The crossing is presently protected with reflective crossbucks and advance warning signs. The existing warning devices are inadequate. The existing warning devices will be adequate until such time as the new warning devices are installed. In order to adequately protect public safety 12" LED automatic flashing lights with gates and constant warning time circuitry are needed because of the accident history, and limited corner and clearing sight distances.

*Constant warning time circuitry* adjusts for train speed and causes the crossing signals to always operate for the same amount of time before the train reaches the crossing, regardless of train speed. A motion detector simply detects the train operation, but does not adjust for train speed so that the amount of warning time varies based on train speed.

*Light emitting diodes (LED)* lamps replace incandescent bulbs. LEDs have higher conspicuity, a wider cone of vision, and longer life than incandescent lights. LEDs are especially useful on east-west roadways where the rising and setting sun may make the signals difficult to see.

**Source of funding:** The signal materials and installation shall be paid from OCR safety funds.

#### Conclusion on the Issue

##### THE COMMISSIONER CONCLUDES:

That in order to adequately protect and promote public safety, it is necessary to install and maintain 12" LED automatic flashing lights with gates and constant warning time circuitry at the crossing of the tracks of the Wisconsin Central Ltd. with Rifle Road in the Town of Crescent, Oneida County.

#### Conclusion of Law

##### THE COMMISSIONER CONCLUDES:

That the jurisdiction of the Office of the Commissioner of Railroads under §195.28, Stats., extends to this matter. Accordingly, the Office enters an order consistent with the findings of fact.

Order

THE COMMISSIONER ORDERS:

1. That the **Wisconsin Central Ltd.** shall install and maintain 12" LED automatic flashing lights with gates, and constant warning time circuitry with appropriate appurtenances in accordance with such plans as are filed with and approved by the Office of the Commissioner of Railroads at the crossing of its tracks with **Rifle Road** at-grade in the Town of Crescent, Oneida County by **December 31, 2008** (Crossing No. 691 404B / MP 211.72).

2. That the **Wisconsin Central Ltd.** shall submit to the Office of the Commissioner of Railroads signal and circuit plans with the cost estimate of its proposed installation and upon completion of the signal project, a detailed statement of the actual cost to the Office and to the Wisconsin Department of Transportation.

3. That the signal installation work herein ordered shall not begin until the district office of the Wisconsin Department of Transportation informs the railroad that they may start such work and such start notice will not be issued until appropriate federal aid or other funding arrangements have been assured. The cost of the new project initiated before the start notice will not be reimbursed with public funds and shall be the responsibility of the railroad.

4. That the **Wisconsin Central Ltd.** shall bear no part of the cost of the crossing signals installation, except for any cost assessed to the railroad pursuant to §195.60, Stats., for the investigation of this matter by the Office. The railroad shall not pass on those assessment costs either directly or indirectly.

5. That if the petitioner, railroad or any interested party objects to this order and requests a hearing within 20 days of the date of this order in writing, the Office will hold a public hearing.

6. That jurisdiction is retained.

Dated at Madison, Wisconsin,           (August 2, 2006)          .

By the Office of the Commissioner of Railroads.

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Rodney W. Kreunen  
Commissioner of Railroads